SI B34 05 06
Brakes

September 2006
Technical Service

This Service Information bulletin supersedes S.I. B34 05 06 **dated August 2006.**

PERFORM THE PROCEDURE OUTLINED IN THIS SERVICE INFORMATION ON ALL AFFECTED VEHICLES THE NEXT TIME THEY ARE IN THE SHOP FOR MAINTENANCE OR REPAIRS AND PRIOR TO RETAIL DELIVERY.

SUBJECT
Service Action: Replace SZL Optical Element

MODEL
E60, E61 (5 Series)

E63, E64 (6 Series)

SITUATION
The optical sensor in the SZL (Steering Column Switch Sensor) may fail.

A defective optical steering angle sensor leads to failure of Active Steering, DSC (Dynamic Stability Control), ARS (Active Roll Stabilization), AHL (Adaptive Headlights), ACC (Active Cruise Control) and the automatic turn signal reset function.

The failure of DSC, ARS and Active Steering is indicated by indicator lamps and display messages.

Note: One or more systems may fail, depending on the degree of damage to the optical steering angle sensor.

This Service Action checks the SZL and replaces the optical element if necessary.

A copy of the customer notification letter is attached.

To minimize the customer's inconvenience caused by this Service Action, pick-up (and deliver after repair) the affected vehicle from customer's home and provide appropriate alternative transportation.

Customers will be impressed when you return their cars cleaned inside and out and with a full tank of gas. Reimbursement information for the vehicle fueling and valet costs may be found in the Warranty portion of this bulletin.

AFFECTED VEHICLES
This Service Action involves E60, E61 (5 Series), E63, E64 (6 Series) vehicles, which were produced from August 26, 2005 to July 28, 2006.

In order to determine if a specific vehicle is affected by this Service Action, it will be necessary to utilize the "Service Menu" of the DCS (Dealer Communication System). Based on the response of the system, either proceed with the corrective action or take no further action.

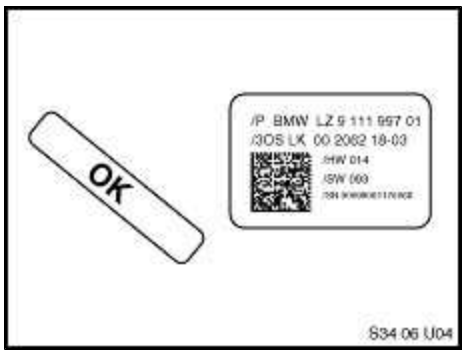
The Chassis Number Ranges listed below are **only** for informational purposes and are not to be considered as the only deciding factor.

Model	Chassis Number Range

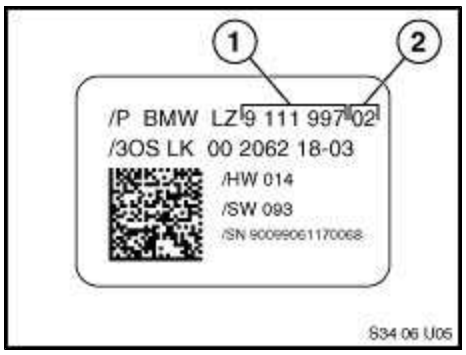
525i	B992184 – B992391
525iA	CK85662 – CK92999
	CW59001 – CW60610
525xi	B999084 – B999218
525xiA	CS35522 – CS39334
530i	B996273 – B996633
530iA	CM38342 – CM46872
530xi	CC34216 – CC34694
530xiA	CG67933 – CG69999
	CU19000 – CU22830
530xiT	B799088 – B799204
530xiTA	CN02129 – CN03974
550i	CN93019 – CN93585
550iA	CP00022 – CP05112
M5	B581063 – B584900
645CiA	CF95411 – CF95414
650Ci	CR46004 – CR46236
650CiA	CR49007 – CR50900
M6 Coupe	B797012 – B797380
645Cic	B261310
645CicA	B328934 – B328946
650Cic	CN72005 – CN72289
650CicA	CN75006 – CN78834
M6 Conv.	CS32013 – CS32015

PROCEDURE

1. Turn the steering wheel so that the front wheels are in the straight-ahead position
2. Follow the Repair Instructions RA 61 31 006 "Removing and installing/replacing fixture for steering column stalk (from 09/2005)" to the point where the SZL part number label is visible.
3. Check the SZL control module as follows:



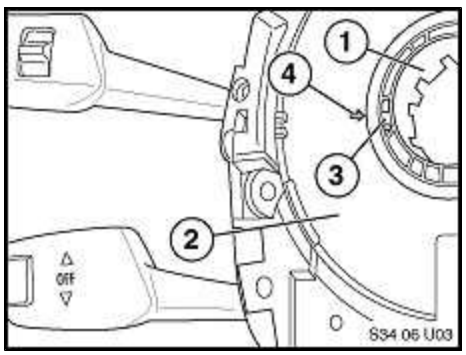
- The SZL is OK if an "OK" label is affixed to the **underside** of the SZL near the part number label. **No further actions are necessary**.



- If no "OK" label is present, check the part number (1) and the modification index number (2) against the table below. **No further actions are necessary if the modification index number matches the part number shown**.

Part Number	Modification index
9 111 997	02 (or higher)
9 111 998	02 (or higher)
9 111 999	02 (or higher)
9 115 165	03 (or higher)
9 115 166	03 (or higher)
9 115 167	03 (or higher)
9 115 183	02 (or higher)
9 115 184	02 (or higher)
9 115 185	02 (or higher)

4. Remove the SZL control unit.



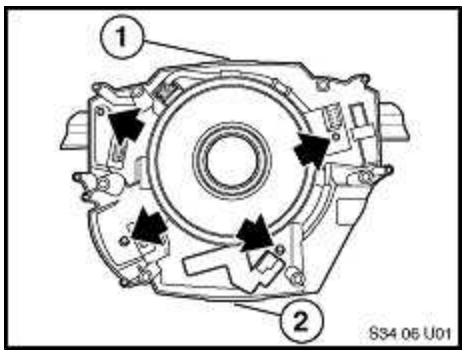
5. Remove the slip ring (rotary coupler). See Repair Instructions "Removal and fitting of the volute spring cassette", see RA 61 31 011.
6. The following should be observed in particular:

- Do not turn ring (1). (Even turning ring (1) through 360deg; is not allowed.)

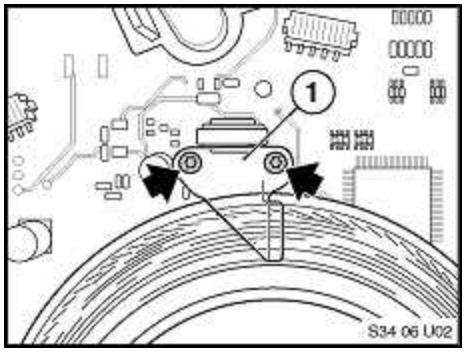
Put the slip ring aside for re-assembly later.

7. Locate a clean workplace for the repair. An anti-static mat MUST be used – see SI B04 19 04. Put on the disposable

gloves supplied in the parts set (only these gloves may be worn). THE UTMOST CLEANLINESS MUST BE ENSURED.



8. Unscrew the four T9 Torx screws of the SZL housing. Lift open the cover by gently prying it out at position (1) (using a screwdriver).

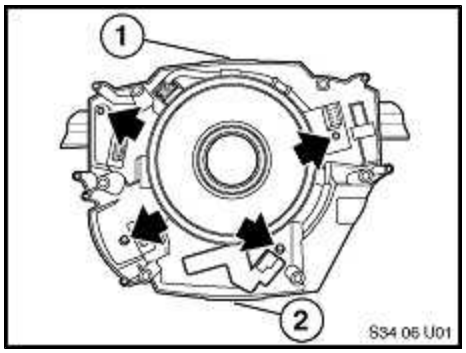


9. Unscrew the two T6 Torx screws to remove the optical element (1) from the board.
Important:

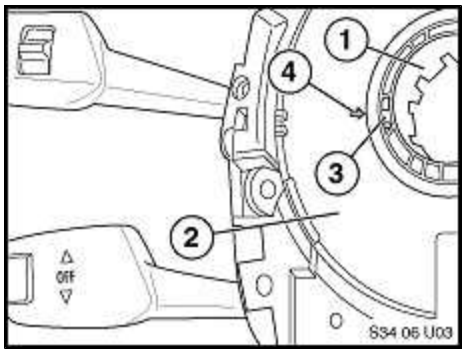
- **Touch nothing other than the optical element.**
- **Under no circumstances should the SZL or optic disk be cleaned or wiped in any way. A visible haze on the optic disk has no negative effect on the operation of the SZL.**

10. Install the new optical element. Incorrect positioning is impossible because the optical element is mechanically coded. Carefully tighten the two Torx screws and do not over-tighten. (Tightening torque of approximately 0.35 Nm).

11. Reinstall the cover to the SZL control unit and tighten the four Torx screws. (Tightening torque of approximately 0.5 Nm). Take care not to trap the cable guide for the windshield wiper switch.



12. Affix the "OK" label near the part number label position (2).



13. Reinstall the rotary coupler (slip ring)
Note for correct installation:
Ring (1) must be positioned in the retainer (2) in such a way that opening (3) for the driving pin (of the rotary coupler) is at arrow position (4).

14. Reinstall the SZL control unit.

Important: The SZL must not be reinstalled until all four cover screws have been tightened correctly.

15. Vehicles without Active Steering: perform steering angle sensor calibration (RA 61 31 996).

Vehicles with Active Steering: align the Active Steering (RA 32 10 005).

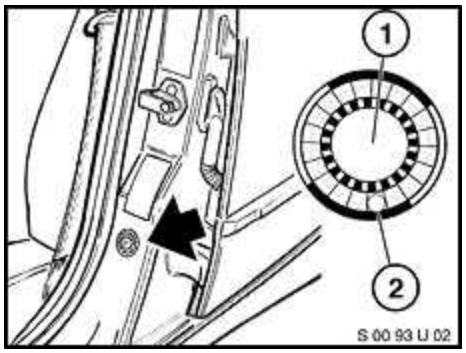
Note: No programming or coding is required

16. Carry out a short test drive to confirm a successful repair.

PARTS INFORMATION

Part Number	Description	Quantity
61 31 9 141 875	SZL repair kit	1

LABEL INSTRUCTIONS



This Service Action has been assigned code number **477.** After the vehicle has been checked and corrected if necessary, obtain a label (SD 92-295) and:

a. emboss your BMW dealer warranty number in the middle of the label (1),

b. punch out code number **477** (2) printed on the label and,

c. affix the label to the **B** pillar as shown.

If the vehicle already has a label from a previous Service Action/Recall Campaign, affix the new label next to the old one. Do not affix one label on top of another one because a number from an underlying label could appear in the punched-out hole of the new label.

WARRANTY INFORMATION

Reimbursement for this Service Action will be **via normal claim entry** utilizing the following information:

Defect Code	**00 61 51 02 00**	
Labor Operation:	00 56 268	Check SZL
Labor Allowance:	7 FRU (E60, except M5)	
	6 FRU (M5, E61, E63, E64)	
Labor Operation:	00 56 269	Vehicles without Active Steering (option 217). Check SZL, replace optical element and perform steering angle sensor calibration

Labor Allowance:	12 FRU (E60, except M5)	
	11 FRU (M5, E61, E63, E64)	
Labor Operation:	00 56 270	Vehicles with Active Steering (option 217) Check SZL, replace optical element and align Active Steering
Labor Allowance:	12 FRU (E60)	
	11 FRU (E61, E63, E64)	

REFUELING COST (VEHICLE ALREADY DELIVERED TO CUSTOMER)

BMW of North America, LLC, will provide reimbursement to have the gas tank topped off once, as required, for each vehicle affected by this Service Action. Attach the appropriate receipt to the work order.

Defect Code	**85 99 00 66 NA**	**Refuel vehicle**
Sublet:	Actual cost to top off the fuel tank	
Sublet code:	4	

VALET COST (VEHICLE ALREADY DELIVERED TO CUSTOMER)

BMW of North America, LLC, will provide reimbursement for vehicle valet services (pick up & delivery) for each vehicle affected by this Service Action. Attach the appropriate receipt to the work order.

Defect Code	**99 99 77 77 NA**	**Valet Service**
Sublet:	$25.00	
Sublet code:	4	

RENTAL VEHICLES

Retailers participating in the Retailer Administered Customer Assistance Program and the BMW Service Loaner Car Program may self-authorize claims for reimbursement of rental costs from independent rental agencies in certain situations. For more details refer to SI B01 07 03.

ATTACHMENTS

view PDF attachment **B340506Customer_Letter**.
view PDF attachment **B340506Q&A**.

[Copyright © 2006 BMW of North America, LLC]